



## Test Report: 230408LCP

### Testing of Road Light Power for AEMO's NEM Load Table for Unmetered Loads on Road lighting luminaires for IZYLUM EVO 72W

*Type of product:* LED Streetlight

*Model Number:* P1603 IZYLEVO13-000017\_DXXX\_RAL7040T

*Prepared for:* Sylvania Schröder

*Description:* 72W LED Streetlight. 220V-240V, 50-60Hz, IP(GEAR)66/IP(OPT)66, IK10, Ta 40°C, Class I luminaire. Features die-cast aluminium housing and glass cover and lens. 2x custom LED boards driven from 1x Inventronics LED driver (model no. EUM-075S105BG) set at 746mA.

#### Test objective

Determination of the luminaire supply operating parameters Voltage, Current, Power and Power Factor when tested at nominal test voltages of 250V. By the method of LEDLab Electrical Parameter Determination and AEMO Unmetered\_Load\_Guideline\_v2\_0.

#### Test configuration

The ten luminaires were operated at 25°C ambient temperature in their normal operational orientation at 250VAC, 50Hz, until the monitored luminaire stabilised as defined in IES LM79. Twenty readings were taken and the average found. The average value is multiplied by the Calibration Correction given in the latest NATA endorsed calibration report then has Voltmeter losses subtracted based on Watt-meter input impedance and test voltage. The other nine luminaires having operated for the same or more time are switched one by one to Wattmeter for their twenty readings.

#### Client

Contact Swati Dhembre, Sylvania Schröder, Bldg 4A, Parklands Estate, 21-23 South Street, Rydalmere, NSW 2116

#### Conclusions

**The Average Load (W) is 71.88W at 0.979 Power Factor.**

Tested by:  
Adrian Gagla

18/04/2023

Authorised Signatory

David Ford

Date: 18/04/2023



## Results

Time till stabilisation: 2h

### Electrical Measurements

Sample 1	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.024	0.296	72.348	0.979
Min	249.920	0.295	72.342	0.979
Max	250.130	0.296	72.361	0.979
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	1.00009	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
<b>Final value</b>	<b>250.09</b>	<b>0.296</b>	<b>72.36</b>	<b>0.979</b>

Sample 2	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.002	0.293	71.697	0.978
Min	249.870	0.293	71.685	0.978
Max	250.110	0.293	71.721	0.978
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	1.00009	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
<b>Final value</b>	<b>250.06</b>	<b>0.293</b>	<b>71.70</b>	<b>0.978</b>

Sample 3	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	249.976	0.295	72.173	0.979
Min	249.520	0.295	72.150	0.979
Max	250.180	0.296	72.191	0.979
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	1.00009	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
<b>Final value</b>	<b>250.04</b>	<b>0.295</b>	<b>72.18</b>	<b>0.979</b>



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Sample 4	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	249.939	0.293	71.551	0.979
Min	249.790	0.292	71.530	0.978
Max	250.260	0.293	71.581	0.979
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	1.00009	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
<b>Final value</b>	<b>250.00</b>	<b>0.293</b>	<b>71.56</b>	<b>0.979</b>

Sample 5	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.023	0.294	72.038	0.978
Min	249.670	0.294	72.022	0.978
Max	250.120	0.295	72.047	0.978
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	1.00009	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
<b>Final value</b>	<b>250.08</b>	<b>0.295</b>	<b>72.04</b>	<b>0.978</b>

Sample 6	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	249.968	0.294	72.027	0.979
Min	249.760	0.294	72.017	0.979
Max	250.100	0.295	72.039	0.979
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	1.00009	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
<b>Final value</b>	<b>250.03</b>	<b>0.294</b>	<b>72.03</b>	<b>0.979</b>

Sample 7	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	249.931	0.296	72.578	0.980
Min	249.720	0.296	72.574	0.979
Max	250.060	0.297	72.585	0.980
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	1.00009	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
<b>Final value</b>	<b>249.99</b>	<b>0.296</b>	<b>72.59</b>	<b>0.980</b>



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Sample 8	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	249.964	0.291	71.143	0.978
Min	249.670	0.291	71.136	0.977
Max	250.210	0.291	71.151	0.978
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	1.00009	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
<b>Final value</b>	<b>250.03</b>	<b>0.291</b>	<b>71.15</b>	<b>0.978</b>

Sample 9	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	249.879	0.295	72.291	0.979
Min	249.750	0.295	72.283	0.979
Max	250.010	0.296	72.296	0.979
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	1.00009	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
<b>Final value</b>	<b>249.94</b>	<b>0.295</b>	<b>72.30</b>	<b>0.979</b>

Sample 10	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Average	250.035	0.290	70.884	0.979
Min	249.910	0.290	70.865	0.978
Max	250.220	0.290	70.898	0.979
Calibration correction (see Newton 4th calibration report 2020002794)	1.00025	1.00009	1.00010	1.0000
Instrument impedance correction (N4)	0.000	0.00024	0.0576	
<b>Final value</b>	<b>250.10</b>	<b>0.290</b>	<b>70.89</b>	<b>0.979</b>



Table 1. Electrical operating parameters of

Sample No.	Supply Voltage (Vrms)	Input Current (Arms)	Input Power (W)	Power Factor
Sample 1	250.09	0.296	72.36	0.979
Sample 2	250.06	0.293	71.70	0.978
Sample 3	250.04	0.295	72.18	0.979
Sample 4	250.00	0.293	71.56	0.979
Sample 5	250.08	0.295	72.04	0.978
Sample 6	250.03	0.294	72.03	0.979
Sample 7	249.99	0.296	72.59	0.980
Sample 8	250.03	0.291	71.15	0.978
Sample 9	249.94	0.295	72.30	0.979
Sample 10	250.10	0.290	70.89	0.979
<b>Average</b>	<b>250.04</b>	<b>0.294</b>	<b>71.88</b>	<b>0.979</b>

## Uncertainties

At a Confidence Level of 95% with a Coverage Factor of 2:

*Supply Voltage:*  $\pm 0.07\%$

*Supply Current:*  $\pm 0.14\%$

*Supply Power:*  $\pm 0.19\%$

*Power Factor:*  $\pm 0.005$

*Ambient Temperature:*  $\pm 1^\circ\text{C}$

## Test Equipment Used

*Power meter:* Newton 4<sup>th</sup> Power Analyser KinetiQ Model PPA2520 SN 133-00467

*Power meter integration time (s):* 5

*Calibration Report:* PlusEs report no. 2020002794

*Luminaire thermometer:* AMA S No. 1086110-0.1deg

General Photographs



Photo 1. Luminaire.

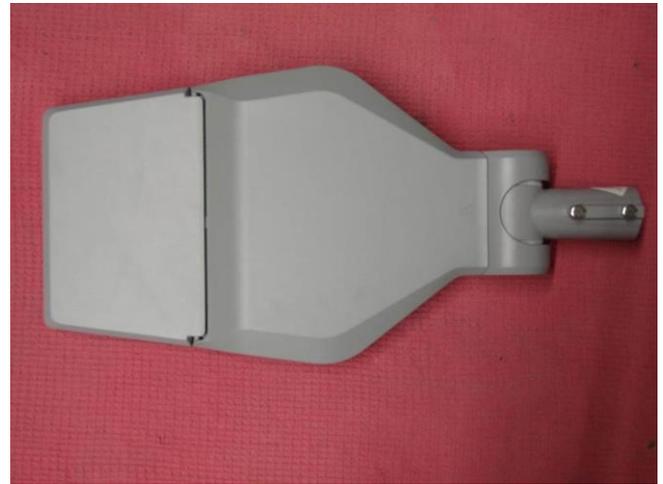


Photo 2. Luminaire.

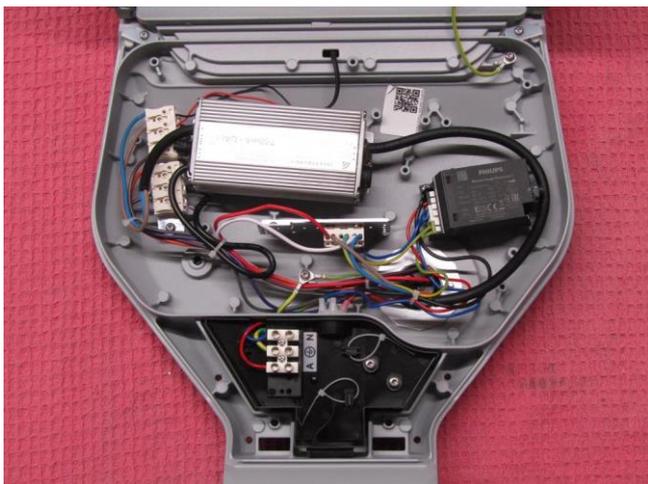


Photo 3. Gear tray.

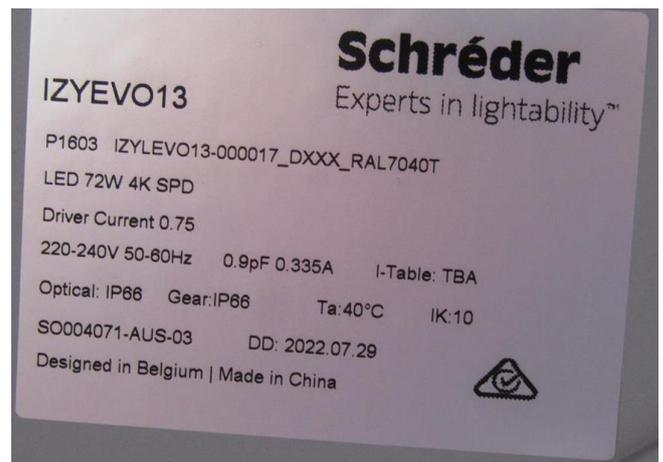


Photo 4. Label.



Photo 5. LED driver.



Photo 6. Optical part.



*Photo 7. Luminaire during test.*